

REMARKS / ARGUMENTS

Claims 1-26 are pending in this application. Claims 1, 10, and 19 are currently amended.

Claims 1, 10, and 19 have been amended to more particularly define Applicant's invention in light of the prior art of record. Claims 1, 10, and 19 have been amended to recite "polypropylene" instead of "polypropylene polymer" and eliminate mineral oil and diundecyl phthalate from the group of plasticizers which may be used in the present blending compositions. Claims 1 and 19 have been further amended to indicate that the minimum amount of ethylene contained in the impact polypropylene is 5% rather than 6%. Support for this change is found at least in Table III of the instant specification.

In the Office Action, the Examiner has rejected Claims 1-26 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner has suggested the terms "polypropylene polymer" in claims 1, 10, and 19 should be replaced with the terms "propylene polymer" or "polypropylene" in order to avoid redundancy. Applicant has amended the claims to recite "polypropylene" instead of "polypropylene polymer" in accordance with the Examiner's suggestions.

The Examiner also suggests that in claims 1, 10, and 19, the impact polypropylene component and the impact modifier component read on one and the same entity. Applicant respectfully points out, however, that the phrase "olefin copolymer of ethylene" used to define the impact modifier component is generally understood in the art to refer to a copolymer in which the content of ethylene is substantially equal to or greater than a second olefin monomer present in the copolymer. On the other hand, an "impact polypropylene polymer with 6-7 percent by weight attached ethylene chains", as generally understood in the art, refers to a polymer containing primarily propylene and a substantially lesser quantity (6-7 percent by weight) of ethylene. Consequently, a determination that "polypropylene polymer with 6-7 percent by weight attached ethylene chains" reads on the same entity as an "olefin copolymer of ethylene" distorts the ordinary meaning of both terms. Accordingly, Applicant respectfully submits that the impact polypropylene component and the impact modifier component recited in claims 1, 10, and 19 are directed to different entities and that the claims as amended are in full compliance with the specific requirements of 35 U.S.C. 112, second paragraph.

The Examiner has also rejected Claims 1-26 of the present application under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,852,115, issued to Young et al. (herein, "Young") in view of U.S. Patent No. 6,306,318, issued to Ricciardelli et al. (herein, "Ricciardelli") or U.S. Patent No. 6,228,479, issued to Zegler et al. (herein, "Zegler").

The Examiner's prior art rejection is based primarily on Examples 88 and 89 of a series of experimental studies provided in Young to measure the properties of recycle formulations of MSL-1 carpet scrap. Example 88 represents a formulation containing 45% MSL-1 Scrap, 5% Kraton, and polypropylene. Example 89 represents a formulation containing 40% MSL-1 Scrap, 5% Kraton, and polypropylene. The Examiner suggests that the MSL-1 scrap material in Young reads on the presently claimed scrap material, the exemplified Kraton material reads on the presently claimed impact modifier, and the exemplified polypropylene generically embraces the presently claimed polypropylene components containing ethylene units. The Examiner argues that, in essence, Examples 88 and 89 differ from the present invention only with respect to the amount of Kraton used.

Applicant respectfully points out that the present invention is in essence, significantly different from Young. The present invention is directed to a method for producing highly flexible polyolefin compositions which may include recycled carpet scrap. In contrast, the formulations of Examples 88 and 89 were prepared primarily to "produce a rigid material from the recycled scrap carpet" (Col 19). Thus, the formulations of Examples 88 and 89 provide "balanced properties for rigid final products" (Col 19) (emphasis added). The formulations of the present invention, on the other hand, provide highly flexible, soft and thermoformable final products. Applicant notes that there is no teaching or suggestion in Young to modify the formulations of Examples 88 and 89 to achieve flexible final products, as such a modification would defeat the objective disclosed in Young to "produce a rigid material". Consequently, Young teaches away from the present invention.

Applicant notes the detailed discussion in Young regarding the specific components in each formulation and the balancing of properties and compatibility based on the amount of each component. Young clearly establishes that minor differences in the amounts and types of components present may lead to significant differences in the physical properties of the final product. Applicant respectfully submits that the Examiner disregards the significance of such

differences by making the blanket assertion that the Kraton material in the formulations of Examples 88 and 89 reads on the presently claimed impact modifier. The formulations of Examples 88 and 89 do not include the type or amount of impact modifier suitable for the present invention. As disclosed in Young, the exemplified Kraton compatibilizer material used in Examples 88 and 89 consists of polystyrene endblocks and poly-(ethylene/butylene) midblocks. The presently claimed impact modifier, however, is defined as an olefin copolymer of ethylene. Consequently, by definition, a copolymer containing polystyrene units in addition to poly(ethylene/butylene) units does not read on the impact modifier as claimed. However, even if the exemplified Kraton material did fall within the definition of an impact modifier as presently claimed, the amount of Kraton material disclosed for Examples 88 and 89 (5% by weight) is far less than the acceptable minimum amount of impact modifier necessary for the blending composition of the present invention (at least 40% by weight). Such a difference is significant since, as depicted in Table IV, lesser amounts of impact modifier adversely affect the physical properties of the final product. The Examiner suggests that it would be obvious to use up to 30% by weight of the Kraton compatibilizer since Young provides general disclosure directed to this amount. However, even this amount falls short of the minimum acceptable amount of impact modifier as recited in the claims. Consequently, Young fails to reasonably teach the presently claimed invention.

With respect to claim 19, the Examiner asserts that while Young does not expressly disclose the use of plasticizers, it would have been obvious to add plasticizers to the formulations of Examples 88 and 89 given the disclosure of plasticizers in the secondary references, Ricciardelli and Zegler. In the instant case, Young provides no motivation or direction to add plasticizers to the formulations of Examples 88 and 89. In fact, Young teaches away from such a modification, as the formulations of Examples 88 and 89 were prepared only in an effort to "produce a rigid material from the recycled scrap carpet". As Young teaches away from the present invention, there is also no motivation to combine Young with the secondary references. Applicant notes that obviousness cannot be shown by combining the teachings of the prior art unless there is some teaching or incentive supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984); *In re Geiger*, 815 F.2d at 688, 2 USPQ2d at 1278 (Fed. Cir. 1987). However, even if the teachings of Young and the secondary references were combined, as suggested by the Examiner,

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one would not arrive at the present invention. While the secondary references may disclose some plasticizers, they do not disclose which plasticizers would be compatible with the presently claimed blending composition. Claim 19, as presently amended, recites only those plasticizers which are compatible with the presently claimed blending composition. The tests discussed in the present application reveal that many plasticizers are incompatible with the presently claimed blending composition and that experimentation is necessary to determine which plasticizers are suitable. For example, it was determined that phthalate plasticizers could not be used in the blending compositions of the present invention (page 20). Ricciardelli, on the other hand, discloses dioctyl phthalate to be a particularly preferred plasticizer (Col 5). Consequently, the combined teachings of Young and the secondary references do not result in the presently claimed invention.

In view of the above information and remarks, Applicant respectfully requests reconsideration of the current rejections. Applicant respectfully submits that the Examiner has not established a prima facie case for the proposed combination of references. Applicant submits that based on the foregoing, claims 1-26 in their present form are allowable over the cited prior art. Applicant further requests that a timely Notice of Allowance be issued in this case.

Should any further questions arise concerning this application or in the event the above amendments do not place the application in condition for allowance, Applicant respectfully requests an interview with the examiner and the examiner's supervisor prior to any new office action relating to the present Application. Attorney for the Applicant may be reached at the number listed below.

Respectfully Submitted,

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